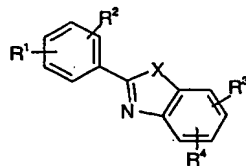


## CLAIMS:

1. A compound of formula (I) or a pharmaceutically acceptable salt or prodrug thereof:

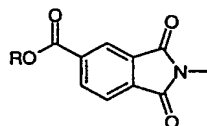


(I)

wherein

X is O or S;

R<sup>1</sup> is a phthalimide carboxylic acid group of formula (II):



(II)

R is hydrogen, C<sub>1</sub>-C<sub>6</sub> alkyl, aryl or C<sub>1</sub>-C<sub>3</sub> alkylaryl;

R<sup>2</sup> is hydrogen, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl, OR<sup>5</sup>, a 5-membered heteroaryl ring or NR<sup>5</sup>R<sup>5</sup> wherein the R<sup>5</sup> substituents together with the nitrogen to which they are attached may form a 5- or 6-membered ring which may contain an additional heteroatom selected from O, S, and NR<sup>10</sup>;

R<sup>3</sup> and R<sup>4</sup> are independently hydrogen, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>10</sup>, COR<sup>6</sup>, NHCOR<sup>7</sup>, NHSO<sub>2</sub>R<sup>9</sup>, CN, S(O)<sub>p</sub>R<sup>9</sup>, phenyl optionally substituted by one or more substituents selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>5</sup>, COR<sup>6</sup>, CN, CHO, OCHF<sub>2</sub>, NR<sup>7</sup>R<sup>8</sup>, NHCOR<sup>7</sup>, NHSO<sub>2</sub>R<sup>9</sup>, S(O)<sub>p</sub>R<sup>9</sup> and methylenedioxy; or a 5- to 10-membered heteroaryl ring which is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl; or R<sup>3</sup> and R<sup>4</sup> together may form a fused phenyl ring or a -O-(CH<sub>2</sub>)<sub>x</sub>-O- group, wherein x is 1 or 2;

R<sup>5</sup> is independently hydrogen, C<sub>3</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> alkynyl, or C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy, C<sub>1</sub>-C<sub>3</sub> alkoxy, NR<sup>7</sup>R<sup>8</sup>, phenyl or a 5- or 6-membered heteroaryl ring, wherein phenyl is optionally substituted by one or more substituents selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, CHO, OR<sup>10</sup>, COR<sup>10</sup>, R<sup>10</sup>, CN and methylenedioxy and wherein the heteroaryl ring is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl;

R<sup>6</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl, OR<sup>5</sup>, NR<sup>7</sup>R<sup>8</sup> or phenyl optionally substituted by one or more substituents selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>5</sup>, COR<sup>10</sup>, CN, CHO, OCHF<sub>2</sub>, NR<sup>7</sup>R<sup>8</sup>, NHCOR<sup>7</sup>, NHSO<sub>2</sub>R<sup>9</sup>, S(O)<sub>p</sub>R<sup>9</sup> and methylenedioxy;

R<sup>7</sup> and R<sup>8</sup> are independently hydrogen, phenyl, a 5- to 10-membered heterocyclic ring, C<sub>1</sub>-C<sub>6</sub> alkoxy, or C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by phenyl or a 5- to 10-membered heterocyclic ring, wherein in each case, the phenyl is optionally substituted by one or more substituents selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, CHO, OR<sup>10</sup>, COR<sup>10</sup>, R<sup>10</sup>, CN and methylenedioxy and the heterocyclic ring is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl;

or R<sup>7</sup> and R<sup>8</sup> together with the nitrogen to which they are attached may form a 5- or 6-membered heterocyclic ring which is optionally substituted by CONR<sup>10</sup>R<sup>10</sup> and may optionally contain an additional heteroatom selected from O, S and NR<sup>11</sup>;

R<sup>9</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl or phenyl optionally substituted by one or more substituents selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, CHO, OR<sup>10</sup>, COR<sup>10</sup>, R<sup>10</sup>, CN and methylenedioxy;

R<sup>10</sup> is hydrogen, C<sub>3</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> alkynyl, or C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy;

R<sup>11</sup> is hydrogen, phenyl or C<sub>1</sub>-C<sub>3</sub> alkyl optionally substituted by phenyl, wherein in each case the phenyl is optionally substituted by one or more substituents selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, CHO, OR<sup>10</sup>, COR<sup>10</sup>, R<sup>10</sup>, CN and methylenedioxy; and

p is 0, 1 or 2;

- 5 provided that the compound is not 2-[4-(5-carboxy-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]-6-benzothiazolecarboxylic acid.

2. A compound according to claim 1 wherein X is O.

- 10 3. A compound according to claim 1 or 2 wherein R<sup>1</sup> is meta to the benzoxazole or benzothiazole group.

4. A compound according to any one of the preceding claims wherein R<sup>2</sup> is hydrogen, OR<sup>5</sup> or NR<sup>5</sup>R<sup>5</sup>.

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5. A compound according to any one of the preceding claims wherein R<sup>3</sup> is hydrogen or halogen.

- 20 6. A compound according to any one of the preceding claims wherein R<sup>4</sup> is hydrogen, halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>10</sup>, COR<sup>6</sup>, phenyl optionally substituted by one or more substituents selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>5</sup>, COR<sup>6</sup>, CN, CHO, OCHF<sub>2</sub> and NR<sup>7</sup>R<sup>8</sup>; or a 5- to 10-membered heteroaryl ring which is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl; or R<sup>3</sup> and R<sup>4</sup> together may form a fused phenyl ring.

- 25 7. A compound according to any one of the preceding claims wherein R<sup>4</sup> is COR<sup>6</sup>, phenyl optionally substituted by one or more substituents selected from halogen, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy or C<sub>1</sub>-C<sub>3</sub> alkoxy, CF<sub>3</sub>, OCF<sub>3</sub>, OR<sup>5</sup>, COR<sup>6</sup>, CN, CHO, OCHF<sub>2</sub> and NR<sup>7</sup>R<sup>8</sup>; or a 5- to 10-membered heteroaryl ring which is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl.

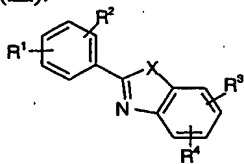
- 30 8. A compound according to any one of the preceding claims wherein R<sup>5</sup> is hydrogen, C<sub>3</sub>-C<sub>6</sub> alkenyl, C<sub>3</sub>-C<sub>6</sub> alkynyl, or C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by hydroxy, C<sub>1</sub>-C<sub>3</sub> alkoxy or a 5- or 6-membered heteroaryl ring, wherein the heteroaryl ring is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl.

- 35 9. A compound according to any one of the preceding claims wherein R<sup>6</sup> is C<sub>1</sub>-C<sub>6</sub> alkyl, OR<sup>5</sup> or NR<sup>7</sup>R<sup>8</sup>.

10. A compound according to any one of the preceding claims wherein R<sup>6</sup> is OR<sup>5</sup> or NR<sup>7</sup>R<sup>8</sup>.

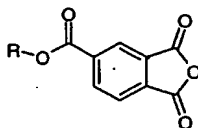
- 40 11. A compound according to any one of the preceding claims wherein R<sup>7</sup> and R<sup>8</sup> are independently hydrogen, or C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by phenyl or a 5- to 10-membered heterocyclic ring, wherein the phenyl is optionally substituted by one or more substituents selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, CHO, OR<sup>10</sup>, COR<sup>10</sup>, R<sup>10</sup>, CN and methylenedioxy and the heterocyclic ring is optionally substituted by C<sub>1</sub>-C<sub>6</sub> alkyl; or still preferably R<sup>7</sup> and R<sup>8</sup> together with the nitrogen to which they are attached may form a 5- or 6-membered heterocyclic ring which is optionally substituted by CONH<sub>2</sub> and may optionally contain an additional heteroatom selected from O, S and NR<sup>11</sup>.
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12. A compound according to any one of the preceding claims wherein  $R^9$  is  $C_1-C_6$  alkyl.
13. A compound of formula (I) as described in any one of Examples 1 to 118 or a pharmaceutically acceptable salt or prodrug thereof.
- 5 14. A compound as defined in any one of claims 1 to 13, but without the proviso, for use in medicine.
15. A process for the preparation of a compound as defined in any one of claims 1 to 13 which comprises:
- 10 a) treating a compound of formula (III):



(III)

wherein  $R^1$  is  $NH_2$  or a protected derivative thereof and X,  $R^2$ ,  $R^3$  and  $R^4$  are as defined in claim 1, with a compound of formula (IV):



(IV)

wherein  $R$  is as defined in claim 1, by i) heating in a suitable acidic medium, or  
ii) heating a compound of formula (III) with a compound of formula (IV) with an organic base in a suitable solvent, followed by heating in a suitable acidic medium.

16. A pharmaceutical composition comprising a compound according to any one of claims 1 to 13, but without the proviso, together with a pharmaceutically acceptable carrier, excipient and/or diluent.
17. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of an inhibitor of heparanase.
18. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of a medicament for the treatment of cancer.
19. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of a medicament for the treatment of angiogenesis or angiogenesis-related disorders.
20. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of a medicament for the treatment of inflammatory diseases or autoimmune disorders.
21. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of a medicament for the treatment of cardiovascular diseases.
22. The use of a compound as defined in any one of claims 1 to 13, but without the proviso, in the manufacture of a medicament for the treatment of renal disorders.